



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,027	12/10/2003	Gi-Young Kim	030681-604	5169
21839	7590	05/31/2006	EXAMINER	
BUCHANAN INGERSOLL PC (INCLUDING BURNS, DOANE, SWECKER & MATHIS) POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			VO, TUYET THI	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/731,027	KIM ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Tuyet Vo	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 March 2006.
- 2a) ☐ This action is **FINAL**.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11, 14, 17 and 21-39 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-39 is/are allowed.
- 6) ☒ Claim(s) 1-11, 14, 17 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date May 06, 2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### Remarks

Applicant's argument filed March 08, 2006 has not been persuasive due to a new point of view in applying the same prior art provided as follow.

### Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-7, 9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Mori et al. (US Pat. 6,798,144), hereinafter Mori.

Regarding claims 1 and 3-6, Mori discloses a flat lamp (Figs. 7 and 14) comprising:

a first glass/transparent panel (1), wherein the first glass panel is separated from a second glass/transparent panel (2) by a predetermined distance and hermetically sealed to the second panel (col. 9, lines 13-18) and **radiated visual light is transmitted outside the flat lamp through either the front panel or the second glass panel dependent from observance reference, the reflective film suggested to be constituted from either the first or second substrate accordingly for supporting the referral observance (col. 8, lines 16-26);**

a spacer (18), which maintains the first and second panels separated by the predetermined distance and secures a discharge space between the first and second panels;

a discharge gas, which exists in the discharge space (col. 1, lines 11-16);

a fluorescent layer (19) formed on an inner surface of the first glass panels; and

Art Unit: 2821

a plurality of electrode groups (X) formed in the first glass panel (1), each electrode group comprising at least three electrodes ( $X_{B-3}$ ,  $X_{A-34}$ ,  $X_{B-4}$ ), wherein the second glass panel comprises a second glass substrate (2), a dielectric layer (26), which is formed on a back surface of the second glass substrate (2), and a fluorescent layer (19) formed on a back surface of the dielectric layer (Fig. 14).

Regarding claims 7 and 9, Mori further discloses the second glass panel (2) comprises a plurality of electrodes (Y) having at least one ( $Y_1$ ) of the electrodes ( $Y_1$ ,  $Y_2$ ,  $Y_3$ ) corresponds to a single electrode group and wherein the electrodes constituting each of the electrode groups are arranged in a striped pattern.

Regarding claim 10, Mori also discloses a gap between sets/groups of electrodes is different than a gap between electrodes among an electrode set/group (Fig. 14).

3. Claims 11, 14 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Saito et al. (US Pat. 6,747,407), hereinafter Saito.

Regarding claims 11 and 21, Saito discloses a flat lamp (Figs. 1 and 2) including a first glass panel (50) and a second glass panel (60), which are spaced a predetermined distance apart from each other and hermetically sealed, and a spacer (70), which is provided between the first glass panel (50) and the second glass panel (60) to maintain the first and second glass panels separated by the predetermined distance and secure a discharge space, wherein a predetermined discharge gas exists in the discharge space (col. 1, lines 44-50), and a fluorescent layer (85) is formed on a surface of at least one of the first and second panels, the surface being exposed to the discharge space, the flat lamp comprising a plurality of electrodes in each of the first and second glass panels, wherein the plurality of electrodes are arranged such that at least three electrodes (120, 130), which are selected partially from the plurality of electrodes included in the first glass panel (50) and partially from the plurality of electrodes included in the second glass panel (60), constitute a single electrode set, wherein the single electrode set comprises at least two electrodes (120) selected from the plurality of electrodes included in the first glass panel (50) and at least one electrode (130) selected from the plurality of electrodes included in the second glass panel (60) to correspond to the at least three electrodes (120, 130) and wherein the plurality of electrodes included in the first and second glass panels are arranged in a striped

Art Unit: 2821

pattern, and the plurality of electrodes included at least one of the first and second glass panels have a shape of a straight line.

Regarding claim 14, Saito further discloses the second panel comprises a second glass substrate (60), a dielectric layer (62), and a fluorescent layer (85), which are sequentially stacked, the plurality of electrodes included in the second panel are formed on a surface of the second glass substrate (60), and the dielectric layer (62) is formed so that the plurality of electrodes formed on the surface of the second glass substrate (60) are covered with the dielectric layer (Fig. 2).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori in view of the admitted prior art shown in figures 1 and 2.

Mori discloses substantially the claim invention as noted above except for a fluorescent layer formed on a dielectric layer, wherein the dielectric layer is formed on the first glass substrate to cover the electrode groups.

The cited prior art shown in figure 1 discloses a fluorescent layer (20c) formed on a dielectric layer (20b), wherein the dielectric layer is formed on the rear glass substrate (20a) to cover the electrode groups.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a fluorescent layer formed on a dielectric layer in order to increase a density of fluorescent material so as to improve a higher quality of image in a flat display device.

Art Unit: 2821

6. Claim 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito.

Saito discloses substantially the claim invention as noted above, in that, the dielectric layer (52) formed on the front glass panel (50) except for fluorescent layer formed on the back surface of the dielectric layer (52).

It would have been an obvious matter of design choice to add a layer of fluorescent material on the back of the dielectric layer in order to increase a density of fluorescent material so as to improve a higher quality of image in a flat display device. Such implementation is considered as a routine skill in the art.

#### ***Allowable Subject Matter***

8. Claims 22-39 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter: the prior fails to disclose a method of driving a flat lamp device having three electrodes formed in the rear panel accommodated by steps of applying first, second and third voltages to first, second and third selected electrodes respectively and a fourth voltage to unselected electrode such that the distribution of the wall charge and space charge taking into account in a manner as required in claim 22. Claim 29 is also allowed due to its limitation as described in that the step of inducing a discharge between a first selected electrode and an adjacent second selected electrode among the first through fourth electrodes, and step of applying a first voltage to the second selected electrode, taking account of a wall charge distribution and a space charge distribution, which result from the discharge, the third/fourth/fifth selected electrode, similarly to the second electrode, having the second/third/fourth voltage applied there-through as required.

#### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyet Vo whose telephone number is 571 272 1830. The examiner can normally be reached on Mon-Fri.

Art Unit: 2821

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571 272 1834. The fax phone numbers for the organization where this application or proceeding is assigned are 571 273 8300 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571 272 2800.

Information regarding the status of an application or status information for publicizing/unpublicizing applications may be obtained from the Patent Application Information Retrieval (PAIR) system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the PAIR system, contact the Electronic Business Center (EBC) at toll free 866-217-9197.

A handwritten signature in black ink, appearing to read 'Tuyet Vo', written over a horizontal line.

Tuyet Vo

Primary Examiner

May 30, 2006